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# UPPER DESCHUTES RIVER CROOKED RIVER WATERSHEDS

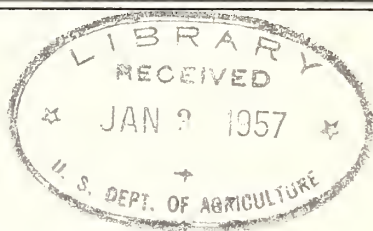
## WATER SUPPLY OUTLOOK

*as of*

APRIL 1, 1955

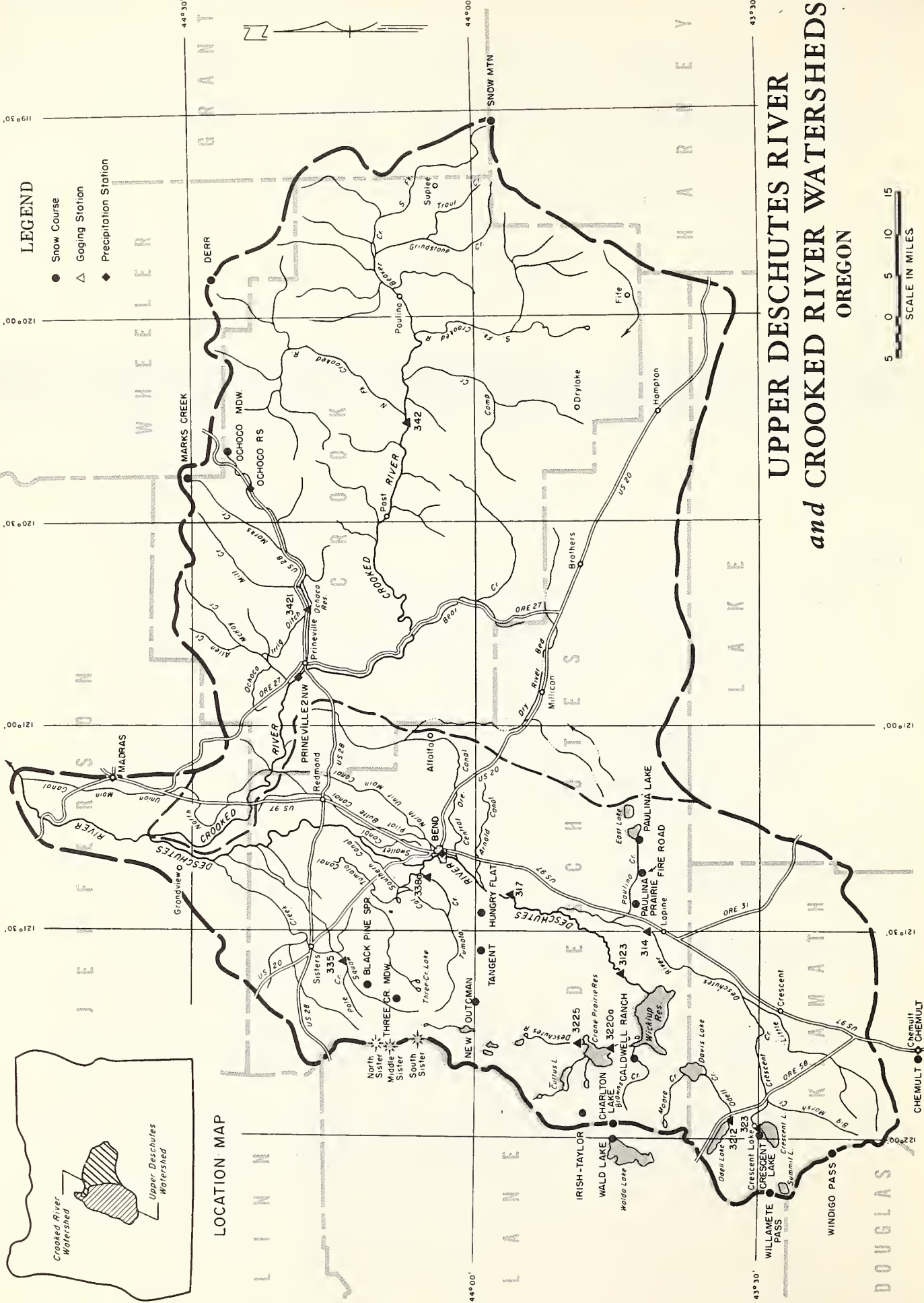
U. S. SOIL CONSERVATION SERVICE and OREGON AGRICULTURAL EXPERIMENT STATION

### S U M M A R Y



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- 1 Water Supply Outlook: Lands served from Upper Deschutes River and reservoirs will have adequate supplies. Late rights on Squaw Creek will be short. Crooked River will produce a very short supply this year with Ochoco Reservoir providing just barely enough water for its water users.
- 2 Streamflow Forecasts: Forecasts in Upper Deschutes vary from 72 percent on the Little Deschutes to 89 percent on the main stem and 86 percent for Squaw Creek. Crooked River will produce only 30 percent of its average flow while inflow to Ochoco Reservoir will be about half its average production.
- 2 Reservoir Storage: Storage on the Deschutes is in excellent condition with adequate water in sight for all users. Ochoco Reservoir fortunately has a heavy hold-over from last season.
- 2 Soil Moisture: Watershed soils are exceptionally dry except for top few inches which have been moistened by recent snow-melt water.
- 3 Snow-Cover: The snow-pack is 84 percent average on these two basins but much snow-melt water will be taken up by dry soils before streamflow gets under way.
- 3 Precipitation: Fall precipitation in these basins was 41 percent while winter precipitation has been 45 percent average. This area of the state has been the driest this past winter of any in the state.



WATER SUPPLY OUTLOOK  
For April-September, 1955<sup>a</sup>

Source of Water	Acreage Irrigated	Outlook
<u>Upper Deschutes River Basin</u>		
Crescent Lake	500	Adequate water from this source is assured the Walker Basin Irrigation Company for lands near Lapine.
Deschutes River	4,234	Swalley Ditch (Deschutes Reclamation and Irrigation Company) is assured an adequate water supply.
Deschutes plus Crane Prairie Res.	46,500	Arnold and Central Oregon Irrigation Districts will be adequately supplied from this source.
Deschutes plus Crescent Lake plus Tumalo Res.	6,830	Tumalo Project (Deschutes County Municipal Improvement District) will have adequate water.
Deschutes plus Wickiup Res.	50,000	Adequate water is assured for North Unit lands in Jefferson County with Wickiup Reservoir full.
Three Creeks Lake	550	Satisfactory water supplies available for Snow Creek diversion.
Squaw Creek	9,800	Adequate for all lands except late rights which will run short early in season. Plainview-McAllister Ditch shut off by early July.
Sqaw and Pole Creeks	1,350	Adequate water for lands of the old Sisters Irrigation District.
<u>Crooked River Basin</u>		
Bear Creek	2,500	Snow-cover very short and water outlook exceptionally poor. Perhaps enough water available for one irrigation.
Crooked River	35,000	Enough water for one short irrigation only. Summer rains badly needed to help.
Ochoco and McKay Creeks	8,500	Streamflow to be very short and fall off early but lands served from Ochoco Reservoir have a chance of getting by this year.

a - Assuming normal meteorological conditions during the April - September period.



STREAMFLOW FORECASTS<sup>a</sup>  
As of April 1, 1955

No.	Name	Gaging Station	Seasonal Streamflow in 1000 a.f.			1955 as % of Avg.
			Forecast 1955	Forecast Period	Avg. 1943-52	
323	Crescent Cr. at Cres. Lk.*		20.0	Apr.-Sept.	27.2	74
314	L. Deschutes R., nr. Lapine*		77.5	Apr.-Sept.	107.7	72
314	L. Deschutes R., nr. Lapine*		71.0	Apr.-July	94.1	75
3212	Odell Cr. nr. Crescent		29.4	Apr.-Sept.	33.3	88
3225	Deschutes R., below Snow Cr.		60.0	Apr.-Sept.	71.8	84
3220a	Crane Prairie Res., net inflow		120.0	Apr.-Sept.	136.7 <sup>b</sup>	88
317	Deschutes R., at Benham Falls*		498.0	Apr.-Sept.	560.8	89
317	Deschutes R., at Benham Falls*		338.0	Apr.-July	377.6	90
338a	Tumalo Cr., nr Bend*		42.0	Apr.-Sept.	55.4	76
335	Squaw Cr., nr. Sisters		46.0	Apr.-Sept.	53.7	86
3421	Ochoco R., net inflow		10.5	Apr.-Sept.	34.5	30
342	Crooked R., nr. Post		74.0	Apr.-Sept.	133.9	55
* Corrected to natural flow			b - 1952 excepted			

RESERVOIR STORAGE

	Usable Capacity	Thousand a.f. in storage about April 1, 1955				
Reservoir	1000 a.f.	1955	1954	1953	10 Yr. Avg. 1943-52	1955 as % of 10 Yr. Avg.
Ochoco	46.0	23.2	46.8	46.8	31.1	75
Crescent Lake	54.9	23.1 <u>1/</u>	38.7*	52.0	45.8	50
Crane Prairie	55.3	49.0	56.2	50.7	41.8	117
Wickiup	187.3	194.2	199.8	199.1	112.5	173
Total (4 Reservoirs)	343.5	289.5	341.5	348.6	231.2	
* Spilling <u>1/</u> Construction activities.						

SOIL MOISTURE

Soils in:	Fall Status	Current status as of April 1, 1955
Lower Valleys	Very dry	All watershed soils are still exception-
Upper Valleys	Very dry	ally dry except where recent snow-melt
Mountains	Very dry	water has wet the top few inches.



